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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,781	04/10/2001	Tsung-Yuan Hsu	B-3916 617818-6	1039
36716	7590	08/09/2007		
LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679			EXAMINER NGUYEN, DUNG T	
			ART UNIT	PAPER NUMBER
			2828	
			MAIL DATE	DELIVERY MODE
			08/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/829,781

**Applicant(s)**

HSU ET AL.

**Examiner**

Dung (Michael) T. Nguyen

**Art Unit**

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### OFFICE ACTION

The indicated allowed claims 1-10 and 19-34 are withdrawn due to the newly found art.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-11, 13-28, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Huber (5208819).

Claims 1-3, 5-11, 13-27, and 30, Fig.1 shows a laser system with self-injection locking, the laser system comprising:

(a) a single frequency laser 10 (DFB) having a laser output for delivering laser light at a frequency  $\omega_0$ ;

(b) a modulator 14 (Mach-Zehnder electro-optic at col.4, l.7) coupled to the output of the laser for generating two sidebands (Fig.2) (shifting the frequency (modulator 42 and as pointed out in Fig.1 and para.0016 of this instant application, the modulator 16 is used to shift the laser frequency. Hence, the Hubert modulator 14 is also used to shift the laser frequency), the modulator being driven by a RF signal 30 at a frequency  $\omega_m$ ;

(c) a filter 18 (fiber grating) coupled to an output of the modulator for suppressing or passing one of the two sidebands (Fig.4); and

(d) an optical path (fiber 16) coupling an output of the filter to the laser for injection locking.

Claim 28, Fig.1 shows the optical path includes a portion of free-space (to detector 20).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huber (5208819) in view of Devaraj et al. (5818587). Huber discloses all limitations of the claim except for the accousto-optic modulator.

Devaraj teach the accousto-optic modulator 3 in Fig.4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Huber what is taught by Devaraj for shifting the laser frequency.

Claims 12 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huber (5208819) in view of Ih (4768852). Huber discloses all limitations of the claims except for the SAW.

IH teaches the SAW (col.1, l.36).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Huber what is taught by Ih to employ an alternate modulator (col.1, l.36).

Claims 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huber (5208819) in view of Ouchi et al. (5659560). Huber discloses all limitations of the claims except for the isolator.

Ouchi teach the isolator 219 in Fig.14.

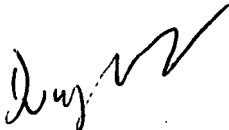
It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Huber what is taught by Ouchi to prevent the laser light reflect back to the laser.

### **Communication Information**

**Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (571) 272-1949. The examiner can normally be reached on 8:30 - 17:00.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

**Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.**



**Michael Dung Nguyen**  
**Primary Examiner**

8/1/07